



September 20, 2013

Mr. William Bergum
Montana Department of Environmental Quality-PTS
PO Box 200901
Helena, MT 59620

RE: Standardized Generic Applications Corrective Action Plan AC-07 for Planet Motors (formerly Sinclair Retail #25009), 1800 Prospect Avenue, Helena, Lewis and Clark County, Montana; Facility ID 25-02093; Release #441; Work Plan ID #7385

Dear Mr. Bergum:

Tetra Tech has prepared this Standardized Abbreviated Generic Applications Corrective Action Plan AC-07 (CAP) in response to the Montana Department of Environmental Quality's (DEQ) letter dated August 19, 2013, to Steve Wong concerning the Planet Motors (formerly Sinclair #25009) Facility. Nine tasks have been identified to complete this request and include: (1) Work Plan, (2) Monitoring Well Installation, (3) Survey, (4) Groundwater Monitoring, (5) Mobilization, (6) Laboratory Analysis, (7) Laser Induced Florescence (LIF) investigation, (8) Reporting, and (9) Project Management. Work will begin within 30 days of CAP approval from the DEQ, satisfactory eligibility determination and obligation of funds from the Petroleum Tank Release Compensation Board (PTRCB), and verbal approval to commence work by Mr. Steve Wong.

SCOPE OF SERVICES

Task 1 Work Plan Preparation

- The task includes the preparation of this Standardized Generic Applications Corrective Action Plan (CAP AC-07).

Task 2 Monitoring Well Installation

- Tetra Tech will subcontract a hollow stem drill rig to install two soil borings to a depth of approximately 30 feet below ground surface (bgs) to be completed as monitoring wells. Wells will be identified as PM-3 and PM-4 and will be located along the eastern property boundary of the Facility. See **Figure 1** for boring locations.
- Two (2) feet of each 5 foot interval for borings PM-3 and PM-4 will be logged from 0 feet to 15 feet bgs on standard lithologic field logs. Below 15 feet, soils will be continuously logged until the ultimate reach of the boring. Soil from the borings will be field screened at 2 foot intervals with a photoionization detector (PID) and the standard headspace technique.
- Soil samples will be collected at the soil-groundwater interface and/or the interval with the highest PID reading at each location.
- For soil intervals with a PID reading greater than 500 parts per million (ppm), drill rig cuttings will be stored on site in 55 gallon drums until laboratory results are received. If laboratory results are greater than DEQ Risk Based Screening Levels for surface soil, drums will be sent to a licensed

Tetra Tech

303 Irene Street, Helena, MT 59601

Tel 406.443.5210 Fax 406.449.3729 www.tetrattech.com

landfill for disposal. Note that additional time and costs for contaminated soil disposal has not been included in the CAP and the budget will need to be amended if proper disposal is required.

- Monitoring wells will be constructed of schedule 40, 2 inch polyvinyl chloride (PVC) tubing and 0.010 inch slotted screens. Colorado silica sand and bentonite will be placed in the annular space. Screening intervals will be set based on field conditions to most closely match the depth of the water table. Steel flush mounted well covers will be used to protect well heads.
- Newly installed wells will be developed using the purge and bail method. Purge water from well development will be broadcast on-site.

Task 3 Survey

- A licensed surveyor will be hired to survey the newly installed wells with 0.01 foot vertical accuracy and survey grade GPS for horizontal locations.

Task 4 Groundwater Monitoring

- Tetra Tech will sample up to eight (8) monitoring wells associated with the facility including the newly installed wells and existing wells PM1, M3, M6, M7, M8, and M9. Wells will be sampled at least 48 hours after development. Low flow sampling techniques will be utilized with a YSI 556 flow through cell and submersible bladder pump. One sampling event will occur during fall 2013 and a second will occur during spring 2014.
- Static water level and free product thickness measurements (if applicable) will also be measured. Field parameters including dissolved oxygen, oxidation-reduction potential, pH, specific conductivity, and temperature will be recorded until parameters stabilize with 10 percent of the previous reading before collecting groundwater samples.
- Purge water from sampling will be broadcast on-site.

Task 5 Mobilization

- Mobilizations includes travel to and from the site for Tetra Tech personnel for utility locating, well installation, well development, groundwater sampling, and the LIF investigation (see *Task 7*).

Task 6 Laboratory Analysis

- This task includes laboratory costs for soil and groundwater and the well sampling fee.
- Soil and groundwater samples will be submitted to Energy Laboratories, Inc. in Helena, Montana for analysis for volatile petroleum hydrocarbons (VPH) and extractable petroleum hydrocarbon (EPH) screen. EPH screen sample results exceeding 200 ppm for soil and 1,000 parts per billion (ppb) in water will be fractionated. All groundwater samples will also be submitted for intrinsic biodegradation indicators including nitrates/nitrites, ferrous iron, total manganese, methane and sulfates. Samples submitted for ferrous iron analysis will be filtered in the field.

Task 7 Laser Induced Florescence Investigation

- Tetra Tech proposes to use an LIF subcontractor to investigate the southern property boundary of the Facility. The investigation will include installing up to 25 Geoprobe borings with a maximum depth of 30 feet per boring. **Figure 1** presents 16 boring locations. An additional 9 borings may be installed based on field conditions such as product identification and Geoprobe refusal.

- The LIF subcontractor will provide a final report which will include 2D and 3D models of free product location (if identified) along the property boundary.
- LIF is considered a unique subcontracted service and only one bid has been solicited from an out-of-state contractor.
- Tetra Tech will secure any access agreements necessary to perform the LIF investigation as necessary for adjoining properties.
- No physical samples will be collected during the LIF investigation.
- The LIF investigation will only be completed if a subcontractor can be coordinated with other projects in Montana. If other projects are not identified within the timeframe allotted for the work plan then an alternative investigation method will be proposed for the southern property boundary, such as additional soil borings.

Task 7 Reporting

- Upon completion of the fall 2013 groundwater monitoring event Tetra Tech will submit the laboratory analytical results and a map showing well locations and groundwater flow direction.
- Tetra Tech will also complete a Standardized Abbreviated Generic Applications Report (AR-07) upon completion of the LIF investigation and the second groundwater monitoring event that will include the following:
 1. A location map, site map, and potentiometric surface map.
 2. A description of findings from the soil boring and monitoring well installation and the LIF investigation.
 3. A table and description of the analytical results.
 4. Recommendations will be provided for additional work, if necessary.
 5. A copy of the survey report, analytical results, and LIF report.
- The Report will be submitted to DEQ with 45 days of receiving the second set of groundwater analytical results and the LIF report. Paper and electronic copies of the Report will be submitted to DEQ.

Task 8 Project Management

- Project management includes coordination with the property owner, DEQ, the PTRCB, and subcontractors. Tetra Tech's standard health and safety protocol and Hazardous Waste Operations and Emergency Response (HAZWOPER) requirements will be ensured.
- A One-Call utility locate service will be notified prior to any subsurface activities.

SCHEDULE

The schedule for the proposed work includes soil boring, monitoring well installation, groundwater monitoring, and possibly the LIF investigation during fall 2013. If the LIF investigation is not completed during fall 2013, it may be completed in spring 2014 with the the second groundwater monitoring event.

COST

Our cost to complete the above mentioned tasks is estimated to be \$ \$51,515.21 and is itemized on the attached spreadsheet. The cost estimate assumes PTRCB 2013 billing rates and includes Tetra Tech staff time, subcontractor quotes, sampling, and analytical services.

Once DEQ has approved the CAP, and the PTRCB has approved the costs, we will know the actual scope of work to be carried out. Should you have any questions please feel free to contact me at (406)447-1450, or by email at nicholas.sovner@tetrattech.com.

Sincerely,



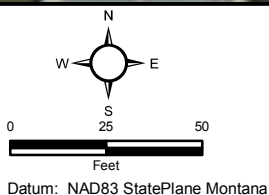
Nicholas Sovner
Environmental Scientist

Attachments: Figure 1
Cost Estimate
Soil Boring and Unit Cost Worksheet and subcontractor bids

Cc: Steve Wong, 615 Faw Rd, Helena, MT 59601
Ec: Brandon Kingsbury, PTRCB, bkingsbury@mt.gov



N:\PROJECTS\Planet Motors\GIS\ArcMap\F-01 Site Map_MW Install.mxd



- Proposed LIF
- Existing Well
- Soil Boring
- Proposed Well
- Facility #25-02093
- Excavation

Planet Motors
1800 Prospect Ave
Helena, Montana
FIGURE 1

COST ESTIMATE
SOIL BORING AND MONITORING WELL CORRECTIVE ACTION PLAN
PLANET MOTORS (FORMERLY SINCLAIR #25009)
HELENA, MONTANA
Facility ID # 25-02093; Releases # 441; Work Plan ID 7385
September 2013

	<u>RATE</u>	<u>UNITS</u>	<u>COST</u>
<u>TASK NO. 1: Work Plan</u>			
Project Scientist, per hour	\$110.25	9	\$992.25
Senior Scientist, per hour	\$121.25	1	<u>\$121.25</u>
		TOTAL TASK 1	\$1,113.50
<u>TASK NO. 2: Monitoring Well Installation</u>			
Project Scientist, per hour	\$92.25	22	\$2,029.50
Photo-ionization Detector (per hour)	\$11.00	20	\$220.00
Driller Quote with 7% m/u (see unit cost worksheet)	\$3,721.66	1	<u>\$3,721.66</u>
		TOTAL TASK 2	\$5,971.16
<u>TASK NO. 3: Survey</u>			
Surveyor Lump Sum with 7% m/u	\$695.50	1	<u>\$695.50</u>
		TOTAL TASK 3	\$695.50
<u>TASK NO. 4: Groundwater Monitoring</u>			
Groundwater Monitoring, per sample	\$159.00	14	<u>\$2,226.00</u>
		TOTAL TASK 4	\$2,226.00
<u>TASK NO. 5: Mobilization</u>			
Vehicle Mileage	\$0.605	50	<u>\$30.25</u>
		TOTAL TASK 5	\$30.25
<u>TASK NO. 6: Laboratory Analysis</u>			
Laboratory Analyses Soil - VPH, per sample	\$120.00	4	\$480.00
Laboratory Analyses Soil- EPH screen, per sample	\$75.00	4	\$300.00
Laboratory Analyses Soil- EPH Fractionation, per sample	\$150.00	1	\$150.00
Laboratory Analyses Water- VPH, per sample	\$120.00	16	\$1,920.00
Laboratory Analyses Water- EPH screen, per sample	\$75.00	16	\$1,200.00
Laboratory Analyses Water- EPH Fractionation, per sample	\$150.00	4	\$600.00
Laboratory Analyses Water- Nitrate + Nitrite	\$25.00	16	\$400.00
Laboratory Analyses Water- Ferrous Iron	\$10.00	16	\$160.00
Laboratory Analyses Water- Manganese	\$10.00	16	\$160.00
Laboratory Analyses Water- Methane	\$50.00	16	\$800.00
Laboratory Analyses Water- Sulfates	\$10.00	16	\$160.00
Metals Digestion by EPA 200.2	\$15.00	16	\$240.00
Sampling Fee	\$10.00	16	<u>\$160.00</u>
		TOTAL TASK 6	\$6,730.00
<u>TASK NO. 7: LIF Investigation</u>			
LIF Quote with 7% m/u (see attached)	\$21,683.55	1	\$23,823.55
Project Scientist, per hour	\$92.25	36	<u>\$3,321.00</u>
			\$27,144.55
<u>TASK NO. 8: Reporting</u>			
Project Scientist, per hour	\$110.25	32	\$3,528.00
Senior Scientist, per hour	\$121.25	4	\$485.00
Drafter CAD, per hour	\$78.50	4	<u>\$314.00</u>
		TOTAL TASK 7	\$4,327.00
<u>TASK NO. 9: Project Management</u>			
Project Scientist, per hour	\$110.25	30	<u>\$3,307.50</u>
		TOTAL TASK 8	\$3,307.50
		TOTAL ESTIMATED COST	\$51,515.21

Petroleum Tank Release Compensation Board

Soil Boring/Monitoring Well Installation Unit Cost Worksheet

Contractor Information

Company Name:

Address:

City, State, Zip:

Cost Estimator:

Phone:

Signature:

Date:

Project Information and Specifications

Site Name:

Facility ID #

Address:

Release #

City:

WP ID #

Type of Drilling Equipment

Hollow-Stem Augers

Air Rotary

Direct Push

Other (please specify)

Monitoring Well Specifications

Number of Wells

Surface: Concrete: Asphalt: Barren:

Depth (per well)

Estimated Depth to Groundwater (ft)

Boring Diameter (inches)

Casing Diameter and type (inches)

Surface Completion: Flush Mount Aboveground

Soil Boring

Number of Borings

Boring Diameter (inches)

Depth (per boring - ft)

Surface: Concrete: Asphalt: Barren:

Soil Disposal: Onsite: Stockpile: Drums:

Abandonment: Bentonite: Soil Cuttings:

Soil Sampling

Continuous Soil Sampling

Interval Soil Sampling

(specify interval)

No Sampling

Cost Estimate Explanation:

⁽¹⁾ **Mobilization/Demobilization:** Includes all costs and mileage to transport equipment, materials, and personnel to and from the site location. More than one mobilization event of either the drilling rig or support vehicle will require justification and pre-approval by the DEQ-PRS and Board staffs. This item should be estimated on a per mile unit rate.

⁽²⁾ **Soil Boring Installation:** Includes all costs (labor, equipment, and materials) to drill, collect soil samples and abandon soil borings, as well as decontaminate equipment. Drilling costs should be estimated using a per foot unit rate. Unit cost should include handling of contaminated soil by stockpiling or placing in drums. Assume level "C" personal protective equipment.

⁽³⁾ **Monitoring Well Installation:** Includes all costs (labor, equipment, and materials) to drill, collect soil samples, and complete monitoring well to specifications and according to Montana Well Drillers Board rules, as well as decontaminate equipment. Drilling costs should be estimated using a per foot unit rate. Unit cost should include handling of contaminated soil by stockpiling or placing in drums. Assume level "C" personal protective equipment.

⁽⁴⁾ **Drilling Standby:** Drilling standby should be estimated on an hourly basis. Prior approval and justification for accumulating standby time is needed prior to billing.

⁽⁵⁾ **Well Development:** Includes all costs (labor, equipment, and materials) to develop monitoring wells. This task should be estimated using a per well unit rate.

⁽⁶⁾ **Monitoring Well Abandonment:** Includes all costs (labor, equipment, and materials) to properly abandon a well location according to the Montana Well Drillers Board rules. Abandonment costs should be estimated using a per well unit rate.

Soil Boring/Monitoring Well Installation Unit Cost Worksheet

TASK	UNIT COST	NUMBER OF UNITS	TOTAL COST
<u>Mobilization/Demobilization</u> ⁽¹⁾			
Mobilization/Demobilization: Drilling Rig	/mile		\$
Mobilization/Demobilization: Support Vehicle	/mile		\$
<u>Soil Boring Installation</u> ⁽²⁾			
Drilling (0'-50' range per boring)	/foot		\$
Drilling (50'-100' range per boring)	/foot		\$
Other (please specify) _____			\$
<u>Monitoring Well Installation</u> ⁽³⁾			
Drilling (0'-50' range per well)	/foot		\$
Drilling (50'-100' range per well)	/foot		\$
Other (please specify) _____			\$
<u>Drilling Standby</u> ⁽⁴⁾			
-prior approval needed	/hour		\$
<u>Well Development</u> ⁽⁵⁾			
Well Development	/well		\$
<u>Monitoring Well Abandonment</u> ⁽⁶⁾			
Abandonment	/well		\$
Lodging may only be paid at actual costs when documented by receipts.			
<u>Per Diem</u>			
Lodging: (number of individuals)	/person per day		
Food: (number of individuals)	/person per day		
(Breakfast 5.00, Lunch 6.00, Dinner 12.00)			
TOTAL PROJECT EXPENSE			\$

Additional Conditions/Comments/Costs:

If you require assistance, call 406-841-5090.
 Submit completed form to:
 Petroleum Tank Release Compensation Board
 PO Box 200902, Helena MT 59620-0902

Petroleum Tank Release Compensation Board

Soil Boring/Monitoring Well Installation Unit Cost Worksheet

Contractor Information

Company Name:

Address:

City, State, Zip:

Cost Estimator:

Phone:

Signature:

Date:

Project Information and Specifications

Site Name:

Facility ID #

Address:

Release #

City:

WP ID #

Type of Drilling Equipment

Hollow-Stem Augers
Air Rotary
Direct Push
Other (please specify)

Monitoring Well Specifications

Number of Wells
Surface: Concrete: Asphalt: Barren:
Depth (per well)
Estimated Depth to Groundwater (ft)
Boring Diameter (inches)
Casing Diameter and type (inches)
Surface Completion: Flush Mount Aboveground

Soil Boring

Number of Borings
Boring Diameter (inches)
Depth (per boring - ft)
Surface: Concrete: Asphalt: Barren:
Soil Disposal: Onsite: Stockpile: Drums:
Abandonment: Bentonite: Soil Cuttings:

Soil Sampling

Continuous Soil Sampling
Interval Soil Sampling
(specify interval)
No Sampling

Cost Estimate Explanation:

⁽¹⁾ **Mobilization/Demobilization:** Includes all costs and mileage to transport equipment, materials, and personnel to and from the site location. More than one mobilization event of either the drilling rig or support vehicle will require justification and pre-approval by the DEQ-PRS and Board staffs. This item should be estimated on a per mile unit rate.

⁽²⁾ **Soil Boring Installation:** Includes all costs (labor, equipment, and materials) to drill, collect soil samples and abandon soil borings, as well as decontaminate equipment. Drilling costs should be estimated using a per foot unit rate. Unit cost should include handling of contaminated soil by stockpiling or placing in drums. Assume level "C" personal protective equipment.

⁽³⁾ **Monitoring Well Installation:** Includes all costs (labor, equipment, and materials) to drill, collect soil samples, and complete monitoring well to specifications and according to Montana Well Drillers Board rules, as well as decontaminate equipment. Drilling costs should be estimated using a per foot unit rate. Unit cost should include handling of contaminated soil by stockpiling or placing in drums. Assume level "C" personal protective equipment.

⁽⁴⁾ **Drilling Standby:** Drilling standby should be estimated on an hourly basis. Prior approval and justification for accumulating standby time is needed prior to billing.

⁽⁵⁾ **Well Development:** Includes all costs (labor, equipment, and materials) to develop monitoring wells. This task should be estimated using a per well unit rate.

⁽⁶⁾ **Monitoring Well Abandonment:** Includes all costs (labor, equipment, and materials) to properly abandon a well location according to the Montana Well Drillers Board rules. Abandonment costs should be estimated using a per well unit rate.

Soil Boring/Monitoring Well Installation Unit Cost Worksheet

TASK	UNIT COST	NUMBER OF UNITS	TOTAL COST
<u>Mobilization/Demobilization</u> ⁽¹⁾			
Mobilization/Demobilization: Drilling Rig	/mile		\$
Mobilization/Demobilization: Support Vehicle	/mile		\$
<u>Soil Boring Installation</u> ⁽²⁾			
Drilling (0'-50' range per boring)	/foot		\$
Drilling (50'-100' range per boring)	/foot		\$
Other (please specify) _____			\$
<u>Monitoring Well Installation</u> ⁽³⁾			
Drilling (0'-50' range per well)	/foot		\$
Drilling (50'-100' range per well)	/foot		\$
Other (please specify) _____			\$
<u>Drilling Standby</u> ⁽⁴⁾			
-prior approval needed	/hour		\$
<u>Well Development</u> ⁽⁵⁾			
Well Development	/well		\$
<u>Monitoring Well Abandonment</u> ⁽⁶⁾			
Abandonment	/well		\$
Lodging may only be paid at actual costs when documented by receipts.			
<u>Per Diem</u>			
Lodging: (number of individuals)	/person per day		
Food: (number of individuals)	/person per day		
(Breakfast 5.00, Lunch 6.00, Dinner 12.00)			
TOTAL PROJECT EXPENSE			\$

Additional Conditions/Comments/Costs:

If you require assistance, call 406-841-5090.
 Submit completed form to:
 Petroleum Tank Release Compensation Board
 PO Box 200902, Helena MT 59620-0902

P.O. Box 3810 - Butte, MT 59702
Office: (406) 494-3310 Fax: (406) 494-3301
Email: info@okeefedrilling.com

Client: Tetra Tech MM
Attention: Nick Sovner
Project: Helena,MT - Planet Motors

Date: 13-Sep-13
Phone: 406-443-5210
Fax: 406-449-3729

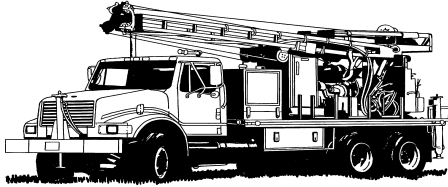
PROJECT SPECIFICATIONS:			
Type of Rig:	<u>Mobile B-61 Auger</u>	Number of Wells:	<u>2</u>
Location:	<u>Helena,MT - Planet Motors</u>	Expected Footage:	<u>30</u>
Formation:	<u>Silts/Sands/ Gravels</u>	Completion PVC Size:	<u>2</u>
Sampling:	<u>Yes</u>	Screen Length:	<u>15</u>
Decontamination:	<u>Yes</u>		
Other Details:	<u>Flushmounts</u>		

Bid for Soil Boring/Monitoring Well Installation

Unit Cost Worksheet

Task		Unit Cost		Number of Units		Total Cost	
Mobilization/Demobilization							
	Drill Rig: Butte	\$	2.25	Miles	130	\$	292.50
	Support Vehicle: Butte	\$	1.75	Miles	130	\$	227.50
Per Diem		Crew Members					
	Motel	2	\$	70.00	Per Person Per Day	\$	-
	Food	2	\$	35.00	Per Person Per Day	\$	-
Soil Boring Installation							
2"	Drilling 0-50 ft range	\$	22.00	Per Foot	60	\$	1,320.00
	Other_____						
Monitor Well Installation							
2"	Drilling 0-50 ft range	\$	27.00	Per Foot	60	\$	1,620.00
	Other_____					\$	-
Drilling Standby & Safety Meeting							
	Prior Approval Needed	\$	150.00	Per Hour		\$	-
Other:							
	Asphalt Patch	\$	18.19	Per Bag	1	\$	18.19
Total Project Expenses						\$	3,478.19

HAZTECH Drilling, Inc.



P.O. Box 30622
2910 Hannon Road, Suite #6
Billings, MT 59107
Phone: 406-896-1164 or 800-359-1502
Fax: 406-896-1462

Proposal

TO: Tetra Tech, Inc.
ATTN: Nick Sovner
303 Irene Street
Helena, MT 59601
Ph: 406-443-5210

DATE: 9/16/2013
INVOICE #:
PROJECT Planet Motors
Helena, MT

Description:

2-30ft well with 15ft of .010 screen and
flush mount covers.

TERMS: Net 30 days

	UNITS	UNIT	AMOUNT
	EST.	PRICE	EST.
*****	*****	*****	*****
Mob/ Demob, Per Mile	450	\$3.25	\$1,462.50
Support Truck, Per Day	2	\$75.00	\$150.00
Perdiem, Per Crew Day	2	\$46.00	\$92.00
Lodging, Per Night, Estimated	1	\$250.00	\$250.00
Auger Drilling, Per Ft	60	\$18.50	\$1,110.00
Well Installation, Per Ft	60	\$20.00	\$1,200.00
Flush Mount Vaults with Concrete, Each	2	\$90.00	\$180.00
Standby	0	\$135.00	\$0.00

ESTIMATED TOTAL: \$4,444.50

Notes:

- 1) Client is responsible to clear location of utilities.
- 2) Client is responsible for disposal of drill cuttings.
- 3) Client will be invoiced only the amounts used.
- 4) We assume that site is accessible by truck mount drill rig.

Proposal By: Paul Bray

Prepared For: Nicholas Sovner – Tetra Tech

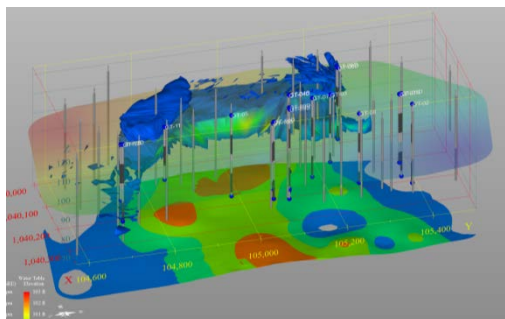
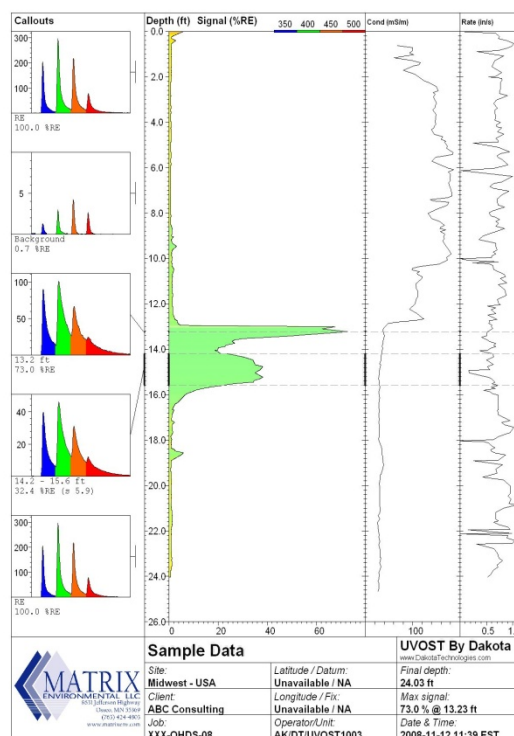
Planet Motors Site Helena, Montana

Approach:

- ◆ Utilize a Geoprobe[®] unit equipped with an UVOST/EC system to provide a vertical and horizontal profile of NAPL product contamination.

Technology Summary:

- ◆ **Ultra-Violet Optical Screening Tool (UVOST):**
Delineates nearly any petroleum NAPL including gasoline, diesel, crude oil, kerosene, and many others. The UVOST system uses a sapphire window in the side of the direct push probe to measure front-face fluorescence of the petroleum NAPL as the probe is advanced into the soil with our direct push equipment. PAH fluorescence of fuels/oils is directed back to the surface where it is analyzed. Responses are indicated in real-time on a graph of UVOST signal vs. depth. The graphs also display colorized logs and waveforms to aid in interpretation.
- ◆ **Electrical Conductivity (EC):**
The EC instrument is a complimentary tool integrated with the UVOST and TarGOST systems. Different soil types will conduct electricity differently depending on particle size and mineralogy. For example, clays generally will have high conductivity while gravels will have low conductivity. The EC system operates at the same time the fluorescence data is being gathered. Logging with both tools can help you develop a site wide model of source pollution and unconsolidated stratigraphy, two key components to predicting mobility.



Conceptual Site Model Option: Matrix is proud to offer 2D and 3D Conceptual Site Modeling as an available option using the high-density, non-subjective electronic data set generated by UVOST[®] and TarGOST[®]. Accurate source term models lead to knowledgeable decisions, effective treatment and removal designs, and realistic cost estimates- saving you and your clients, time and money.



Equipment:

- ◆ (1) Geoprobe[®] Model 6600 Series Unit.
- ◆ (1) Dakota Technologies[®] UVOST[®] /EC System.

Schedule:

- ◆ We have estimated that it will take 3-days to complete the scope of work outlined.

NOTE: There is a 2-day minimum with the UVOST/EC systems.

Scope of Work:

- ◆ Matrix will coordinate a public utility locate through the state one call system.
- ◆ Client and property owner will assist in the location of private utilities in the work area.
- ◆ Advance 21 to 27 borings to depths of 30 to 35-feet bgs for the collection of UVOST[®] /EC data (estimated 7 to 9 borings/day = 3-days).
- ◆ Color logs are printed immediately after each push is completed. Field logs will be uploaded to a secure project website a couple of times per day. At completion of the field work a standard report including scaled field logs, summary table, & discussion (if necessary) will be uploaded to the project website along with all electronic data logs.
- ◆ In addition to the standard report, an Integrated Site Visualization (ISV) report will be completed including 2D & 3D images of the UVOST & EC data.
- ◆ All borings will be abandoned in accordance with State guidelines and surface materials restored to match existing surface conditions.
- ◆ Equipment will be decontaminated with an Alconox/water mixture and rinsed with DI water and when necessary a high pressure/hot water cleaner.
- ◆ Matrix personnel will be prepared to complete all work in Level D safety equipment.





Cost Estimate

Planet Motors Site Helena, Montana

Prepared For: Nicholas Sovner
Company: Tetra Tech
Phone : 406.443.5210
Fax: 406.449.3729
Email: nicholas.sovner@tetrattech.com

Description	Qty	Unit	Unit Rate	Estimated total
◆ Project Coordination	1	Lump Sum	\$150.00	\$150.00
◆ Mob (Direct Push Rig/UVOST System)	1000	Per Mile	\$4.00	\$4,000.00
◆ Crew/Rig/UVOST-EC System	3	Per Day	\$4,000.00	\$12,000.00
◆ Abandonment/Restoration	750	Per Foot	\$1.00	\$750.00
◆ Survey/GPS Equipment	3	Per Day	\$105.00	\$315.00
◆ ISV Report (2D/3D Modeling)	1	Lump Sum	\$4,000.00	\$4,000.00
◆ Per Diem	6	Per Person/Day	\$175.00	\$1,050.00
Estimated Total:				\$22,265.00

Matrix Signature: _____

Date: 8/9/13

Matrix Name: _____

James D. Dzubay

Matrix Title: _____

Chief Operating Officer



Helena • Billings • Casper • Gillette • Rapid City • College Station

Quote #: H912
Project Manager: Amanda B. Blackburn
Expires: 12/31/2014

www.energylab.com

Analytical Quote

Nicholas Sovner
Tetra Tech Inc
303 Irene St
Helena, MT 59601

TAT: 10 days
QC Level: STD

Project Name: Planet Motors

Schedule: Soil

Matrix: Soil

Comments:

Analyses	Method	Reporting Limit	Analyte Price
Hydrocarbons, Extractable Petroleum Scrn			\$75.00
Hydrocarbons, Extractable Petroleum-Scrn	SW8015M	10 mg/kg-dry	
Moisture	SW3550A	0.2 wt%	
Petroleum Hydrocarbons-Volatile			
Volatile Petroleum Hydrocarbons	MA-VPH	0.05 - 2 mg/kg-dry	\$120.00
Preps For Soil			
EPH-Ultrasonic Extraction	SW3550B		
Methanol Extraction for Volatiles	SW5035		
Methanol Extraction for Volatiles	SW5035		\$0.00
Schedule Price/Sample:			\$195.00
Number of Samples:			4
Schedule Total:			\$780.00

Schedule: Soil EPH Fractionation w/o PAH

Matrix: Soil

Comments:

Analyses	Method	Reporting Limit	Analyte Price
EPH Soil w/o PAH			\$150.00
Hydrocarbons, Aliphatic Extractable Petroleum	MA-EPH	10 mg/kg-dry	

Hydrocarbons, Aromatic Extractable MA-EPH
Petroleum

10 mg/kg-dry

Preps For Soil EPH Fractionation w/o PAH

EPH-Fractionation MA-EPH

Schedule Price/Sample: \$150.00

Schedule: Water

Matrix: Aqueous

Comments:

Analyses	Method	Reporting Limit	Analyte Price
----------	--------	-----------------	---------------

Inorganics

Anions by Ion Chromatography			\$10.00
Sulfate	E300.0	1 mg/L	**

** Included in Anions by Ion Chromatography Price

Nutrients

Nitrogen, Nitrate + Nitrite	E353.2	0.01 mg/L	\$25.00
-----------------------------	--------	-----------	---------

Metals, Dissolved

Metals by ICP/ICPMS, Dissolved			\$10.00
Iron, Ferrous	E200.7_8	0.03 mg/L	**

** Included in Metals by ICP/ICPMS, Dissolved Price

Metals, Total

Metals by ICP/ICPMS, Total			\$10.00
Manganese	E200.7_8	0.001 mg/L	**

** Included in Metals by ICP/ICPMS, Total Price

Petroleum Hydrocarbons-Volatile

Volatile Petroleum Hydrocarbons	MA-VPH	0.5 - 20 ug/L	\$120.00
---------------------------------	--------	---------------	----------

Extractable Petroleum Hydrocarbons-Screen Analysis

Hydrocarbons, Extractable Petroleum Screen	SW8015M	0.3 ug/L	\$75.00
--------------------------------------------	---------	----------	---------

Organic Characteristics

Methane	SW8015M	0.001 mg/L	\$50.00
---------	---------	------------	---------

Preps For Water

EPH-Sep Funnel Extraction	SW3510C		\$0.00
Metals Digestion by EPA 200.2	E200.2		\$15.00
Preparation, Dissolved Filtration	MCAWW		\$0.00

Schedule Price/Sample: \$315.00

Number of Samples: 16

Schedule Total: \$5040.00

Schedule: Water EPH Fractionation w/o PAH

Matrix: Aqueous

Comments:

Analyses	Method	Reporting Limit	Analyte Price
EPH Water w/o PAH			\$150.00

Hydrocarbons, Aliphatic Extractable Petroleum MA-EPH 0.3 ug/L

Hydrocarbons, Aromatic Extractable Petroleum MA-EPH 0.3 ug/L

Preps For Water EPH Fractionation w/o PAH

EPH Fractionation MA-EPH

Schedule Price/Sample: \$150.00

Number of Samples: 4

Schedule Total: \$600.00

Schedule Name	Price / Sample	Number of Samples	Schedule Total
Soil	\$195.00	4	\$780.00
Soil EPH Fractionation w/o PAH	\$150.00	1	\$150.00
Water	\$315.00	16	\$5040.00
Water EPH Fractionation w/o PAH	\$150.00	4	\$600.00
Quote Sub Total:			\$6570.00
Discount:			10.00%
Misc Charges:			\$0.00
Quote Total:			\$5913.00

To assure that the quoted analysis and pricing specifications are provided, please include the Quote ID number referenced above on the Chain of Custody or sample submittal documents.